	School of Computer Science
	Winter 2015
	03-60-330-01
	Operating Systems Fundamentals

INSTRUCTOR: *Dr. Imran Ahmad*

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LECTURE: Tue./Thu.   11:30 PM – 12:50 PM in ER 3123
OFFICE HOURS: Tue/Thu: 10:00 – 11:15 AM & 12:50 – 01:20 PM in my office;
                      Wed: 12:50 – 01:20 PM in my office or ER G125. Any other time, by **appointment ONLY.**

GA / TA: TBA

TEXT: A. Silberschatz, P. Galvin & G. Gagne, *Operating System Concepts*, Willey., ISBN: 978-1-118-06333-0.

PREREQUISITES: Students **MUST** have **all** of the prerequisites (60-212, 60-254, 60-255/60-256 and 60-265/60-266).

COURSE OBJECTIVES AND OVERVIEW:

Operating system is an essential part of a computer system. This course will contain a general study of fundamental concepts pertinent to the operating system design and operation and various performance related issues and policies. In this course, we will study and discuss operating system services, primary components of multi-programming operating systems, CPU scheduling, concurrent processes, process synchronization and inter-process communication, deadlocks, memory management, file systems, virtual memory, disk scheduling. UNIX and/or MS Windows will be used as a case example as well as for program development.

COMPUTING RESOURCES:

For any program development, the main computing platform for students taking this course will be the computer science servers and program development will be **ONLY** in C language.

COURSE PLAN:

Course has several important components as described below:

- **HOMEWORK ASSIGNMENTS:**

  There will be up to 6 individual written and/or programming homework assignments. All of the assignments will be **due** at the **beginning of the class** on its due date. **Late submission** of **ANY** homework assignment **is NOT** allowed. All assignments **MUST** be type written and submitted electronically through the course related **CLEW** site (link will appear in your SIS system). The CLEW site will **automatically CLOSE** accepting submissions at the due date/time. More details about homework assignments will be provided later. Assignments **MUST** be done individually with no copying from **ANY** other source (see policy on cheating/copying). For programming assignments, **NO** sample solution will be provided.

- **EXAMINATIONS:**

  Beside a comprehensive final exam, there will be two midterm exams. If you miss any midterm exam or both, their percentage will be carried over to the next exam (or the final as the case may be) but **ONLY** for valid and verifiable reasons as explained. You **MUST** pass the final exam to get a passing grade. If you miss the final exam and have valid and verifiable reason, you will be required to write a makeup exam once the term is over (see details below). If you suspect that you will be unable to write an exam because of **a valid and verifiable** reason, you **MUST** give me a prior notice, before the start of the exam. Even if you are sick or face unavoidable circumstances, you **MUST** notify me or the school through phone, email, fax, etc. along with necessary documentary evidence that **MUST be** received - in original - within a week of the exam. Have your doctor fill up the "UWindsor Student Medical Certificate" available from the course web site. A doctor's note stating that "patient states that I am sick" or "had headache" or something similar without professional medical opinion will **NOT** constitute a valid reason and will **NOT** be accepted. A medical note **MUST** be obtained on the day of claimed sickness unless it is not medically possible and the doctor's note must clearly states it. In the absence of UWindsor Student Medical Certificate and a proper proof (for other reasons), **NO** makeup exam will be allowed (for regular exams – carrying over percentage to the next exam). **REMMEBER** that having a medical note **DOES NOT** automatically makes you eligible for a makeup exam. Instructor reserves the right to **REJECT** a medical note. Unless mentioned otherwise, all of the exams will be closed book, closed notes and closed neighbors. Also please keep in mind that progressively exams will keep on getting difficult with first midterm being the easiest among all. Only for valid, verifiable and approved cases, there will be a makeup exam on **Monday Apr. 27, 2015 @ 10:00 AM** and will cover all of the material covered during the entire semester. Exact place of makeup exam will be announced in the "Announcement" section of the course webpage

and it is your responsibility to make yourself familiar with it. There will be no makeup of the makeup exam. If you miss both the scheduled final and the makeup exams but can provide a satisfactory evidence, an average of the taken exams and spot quizzes minus 25% will be used to compute final percentage for the missing exam.

ATTENDANCE:

Though not required, attendance is very important. The course is very conceptual and requires thorough understanding of the material. All of details and information will be provided during the lectures only and students are responsible to take proper notes. All of the exams and homework assignments will be primarily (though not exclusively) based on the material presented in class. Lectures will also include necessary information pertinent to homework assignments and exams.

POLICY ON CHEATING:

You are expected to do all of your work in any of the homework assignments and exams individually, without the help of others. In cases of suspected cheating, you will get **zero points** for that homework assignments or question in exam. This will be irrespective of who cheated from whom. You are responsible to protect your work from others. Instructor **WILL NOT** negotiate with the students' involved but will initiate a formal complaint with the **Academic Integrity Office** for necessary disciplinary action.

"The University believes in the right of all students to be part of a University community where academic integrity is expected, maintained, enforced, and safeguarded; it expects that all students will be evaluated and graded on their own individual work; it recognizes that students often have to use the ideas of others as expressed in written, published, or unpublished work in the preparation of essays, papers, reports, theses, and publications. However, it expects that both the data and ideas obtained from any and all published or unpublished material will be properly acknowledged and sources disclosed. Failure to follow this practice constitutes plagiarism. The University, through the availability of Turnitin®, desires to encourage responsible student behavior, deter plagiarism, improve student learning, and ensure greater accountability."

Turnitin® may be used for some or all of the student homework assignments in this course, as the case may be, at the instructor's discretion as deemed necessary. Note that students' homework assignments that are submitted to Turnitin® become part of the Turnitin® database. This assists in protecting your intellectual property. However, you also have the right to request that your paper(s) not be run through the student papers database of Turnitin®. If you choose to do so, that request must be communicated to the instructor in writing within a week of the first lecture of the course.

TEACHING EVALUATION:

Student Evaluation of Teaching (SET) forms will be administered during the last two weeks of the class schedule.

EVALUATION SCHEME: The points distribution for various components is as follows:

Homework Assignments:	12 %	
Spot Quizzes (as per senate policy)	05 %	3 – 5; minimum points for each will be 1 %
Midterm 1:	14 %	(Tentative date/time: Saturday Feb. 14, 2015 @ 10:00 AM)
Midterm 2:	23 %	(Tentative date/time: Saturday Mar. 21, 2015 @ 10:00 AM)
Final: (comprehensive)	46 %	(Exam Slot 2; Monday Apr. 13, 2015 @ 12:00 Noon)

CONVERSION OF MARKS (new scale used since Fall 2013)

Since Fall 2013, university is using a new 100% grading system. Therefore, only raw scores (numeric final grades) will be issued to students and all grades below 50% are considered failures. For more details, please following the link:

http://web4.uwindsor.ca/units/registrar/calendars/undergraduate/cur.nsf/inToc/CA4AB426E84D6C51852573690055F0A1?OpenDocument

or check the University of Windsor **Senate policy document M5** (Marks/Grade Descriptors)

There will be **NO** incomplete grade given under any circumstances.

NOTES:

1. As per university policy, emails originating **ONLY** from the `uwindsor.ca` domain will be answered.

2. Other than computational errors, any in-semester request for review of marks on individual questions in exams, quizzes, homework will not be entertained. If you "disagree" with marks on any specific question in any of the exams or homework, please keep a record of it along with your reasons for disagreement. After getting your final grade, if you are convinced that addition of such "disagreed" marks will definitely change your grade, you can file a formal petition for the change of grade.

3. Frequently various pieces of information, announcements and other information related to the course will be posted on the course homepage. You are advised to periodically keep on checking the course link for latest information. It is important to remember that the course web page are for your convenience **ONLY** and are not intended to support your absence from the lectures/class.

4. Important dates to remember:

   - Jan. 21, 2015:   Last add/drop day (full tuition refund).
   - Feb. 16–20, 2015: Family Day & Study Week, no classes
   - Mar. 18, 2015: Last day for voluntary withdraw from course.
   - Apr. 10, 2015: Last day of classes.

"Once the game is over, the king and the pawn go back into the same box" .... (*an Italian proverb*)